Degrees of separation – balancing intervention and independence in group work assignments

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Abstract

Group work is a widely used learning approach in higher education where it is seen as encouraging the development of collaborative skills and attitudes while producing an assessable product. Group assignments can, however, create dilemmas and tensions for both staff and students. Students often seek academic intervention in the form of support and dispute arbitration; and the types of interventions employed to deal with issues arising during and after group work, and the effectiveness of the interventions, are critical aspects of group assignments.

This paper reports the findings from a recent qualitative study based on interviews with ten university academics about their use and management of undergraduate group work. These findings revealed that positive experiences and outcomes can be undermined when staff expectations of group work are at odds with student reality, particularly when academics try to distance themselves from student group problems or intervene retrospectively.

The paper concludes that academics must be able and willing to work alongside groups in helping them achieve outcomes that are positive, fair and equitable.

Background and relevance of this study

Collaborative learning and assessed group work projects have emerged as one of the major trends in education (Barfield 2003, Brown, Bull & Pendlebury 1997, Gatfield 1999, McConnell 2005). Educators promote the benefits of group work on pedagogical grounds. Educational theorists such as Johnson and Johnson (2006) believe that creative solutions to many complex problems require input from several individuals, and that group work develops important problem solving behaviours. Other educational benefits derive from increased student motivation, cognitive development (Johnson & Johnson 1994, 1991), increased knowledge creation and sharing (Yaczi 2005) and academic success (Barkley, Cross & Major 2005). Group work is also important for the preparation of work-ready graduates (Cranmer 2006, DETYA 2000, Maguire & Edmondson 2001).

A more pragmatic use of group work arises from continued resource pressures within universities as group assignments present fewer items for marking and therefore apparent opportunities for time saving. Such perceived economies have contributed to the growth in group work as part of universities' teaching and learning strategies (Boud, Cohen, & Sampson 1999, Livingstone & Lynch 2002a).

Despite these potential benefits, however, group work assignments continue to be a confronting endeavour for both students and academics. Working collaboratively for assessment often results in a tense and emotionally charged environment because working as a group on assignments challenges much more than students' ability to demonstrate subject matter mastery (Yazici 2005, Johnson & Johnson 1994). Group tasks also require students to understand group processes, demonstrate the ability to coordinate tasks, manage interpersonal relationships and negotiate solutions when conflict arises (Furnham 1997, Tuckman 1965). Faced with cognitive and social tasks that are new and challenging, and often at odds with the student's personal learning style, it is not surprising that students are often unenthusiastic and anxious about working in groups (McConnell 2005, Bosworth & Hamilton 1994, Mutch 1998).

Growing concerns about the practical implications of group work are evident. Livingstone and Lynch (2002b) report that students feel 'ripped off' by group work. Crebert, Bates, Bell, Patrick and Cragnolini (2004, p.157) also note that 'students [are] critical of how process aspects of team work [are] not paid enough attention' and that students avoid team work, preferring to work as individuals.

If the whole group exercise is to be worthwhile, warn Livingstone & Lynch (2002b, p. 215), 'academics need to stay involved in the process', in which case they have to be prepared to deal with student hostility and anxiety about the whole activity, meaning that anticipated time savings are often unrealised.

The increasing emphasis on quality learning outcomes in universities means that the complex and troublesome aspects of group work for assessment require investigation and amelioration; and there is growing support for greater understanding of academics' experiences and perceptions in managing group work because of its significance (Crebert et al. 2004). Furthermore, as reflective practitioners, academics need to implement strategies to facilitate effective and equitable group processes and outcomes in order to enhance the quality of student learning.

Academics are wise, therefore, to be prepared for, and alert to potential problems when requesting that students work in groups. At the beginning of a group work task, for example, issues relating to the management of aspects of the group's interaction, in particular the level and nature of support for groups when not just intellectual, but relational difficulties arise, should already have been considered and strategies formulated.

Lejk and Wyvill (1996) emphasise the need for such preplanning, in particular the careful design and execution of projects and the provision of academic support along the way. Importantly too, students need to have an adequate understanding of group processes and interactions (Mutch 1998).

Furthermore, and often overlooked, is the necessity to clearly communicate to the students the reasons for assigning a group task, the objectives of the task and the process to be followed and the academic's role (Bruck, Hallett, Hood, MacDonald & Moore 2001). For staff who think working in groups is integral to the nature of their courses and to student outcomes, the whole process of working together has to be regarded as a learning activity. The question is to what degree should working in groups be facilitated, guided and informed by academics from beginning to end?

Purpose of the study

The research was part of a larger study aimed at understanding academics' experiences and perceptions of managing group work. The larger study explored issues such as attitudes of academics to the purposes and outcomes of group work and the strategies they used to facilitate effective group work, that is, group work that achieved nominated objectives both in terms of process and outcome.

Attitudes towards intervention and the types of interventions used are of particular interest, given research indicating that group work aims to expose students to realistic real world team experiences. However there is always a danger that students will perceive group work as overly difficult due to the complexities of group dynamics, and academics as unsupportive and distant from group problems (Bonanno, Jones & English 1998).

Academics' descriptions of their personal experiences provide insight into the range of intervention options available, the kinds of actions that can be taken, and how the interventions might enhance or detract from the overall success of group work assignments. Insight derived from the study participants' experiences has the potential to increase others' confidence in teaching team work skills and processes (Crebert et al., p.163). It is the aim of this paper to contribute to such insights.

Procedure of the study

In a study exploring staff experiences with managing group work assignments, 10 academics from an Australian university were interviewed. They were asked to describe their experiences when setting group assignments, specifically any interventions used in order to manage or guide the collaborative process. Group work assignments were typically eight to 15 weeks in duration. The academics were interviewed in person for approximately one hour each and the interviews were semi-structured, in-depth and open-ended. The same interview-guide questions were used in each interview.

Participants in the study

All participants set group work assignments for assessment. They were experienced teachers, each having taught at university level for at least 10 years. Participants were course designers and course deliverers from the same faculty, that is, they were assigned responsibility for course development and structure, including content, teaching and learning processes, delivery and assessment methods, while also delivering the course with the support of others. These academics, therefore, controlled the number of group work assignments, and were in the best position to articulate why the assignment was important in the context of the anticipated course outcomes.

The participants in this study, on the whole, operated as reflective practitioners (Brookfield 1995). They related perceptions gleaned and developed over time as a result of thoughtful management and systematic review of their courses.

Data analysis

Interview transcripts were analysed using interpretive techniques of qualitative data coding and categorising to generate themes for comparison across the interviews (Fenwick 2002). All transcripts were read and, once transcribed, checked against the audio tape. Transcripts were sent to participants for checking and confirmation. Coding and analysis were undertaken as data were being gathered, namely after each interview was completed and transcribed rather than at the end of the whole data gathering process (Taylor & Bogdan 1998). Therefore, responses from initial interviews were reviewed and reflected upon and preliminary processing was undertaken directly following each interview. As issues emerged from the data, further exploration was pursued in subsequent interviews. Themes and discussion of the patterns generated in this analysis were continually checked.

Findings of the study

Most participants recalled occasions when they were aware of students experiencing problems during the course of the group assignment. Group difficulties arose from:

- group members not attending meetings as required;
- individual students dominating groups;
- group members failing to contribute; and
- students taking others' work as their own.

In addition, the academics found that excessive amounts of time were often required to resolve dysfunctional aspects of groups; and, in two cases, that the university was willing to intervene contrary to the academic's wishes.

These reoccurring references to problematic aspects were organised into an overarching theme of 'intervention' although it appeared in a number of guises. When this theme was then teased out and subdivided, common issues were raised by the participants related to the rationale, philosophy and practice of group work; and all of them ultimately led to the concept of intervention:

- Should an academic intervene to assist dysfunctional groups, or any group at all? Yes or no?
- If so, at what point is intervention necessary? Why?
- If intervention is considered unnecessary, why?
- If intervention is required, what types of actions can be taken and what sorts of consequences might be expected?
- What is the student reaction to intervention or lack of intervention?

The nature and timing of intervention: Academic perceptions and issues

Views about appropriate intervention in student group activities varied from participants saying that they would strongly resist taking action, such as removing non-performers from the group, for example: 'I would actually make that not an option, unless there was risk of bloodshed', to other participants who intervened early in the semester and made changes to groups during the initial stages of forming.

Participants who made changes early believed that due to the significance of the group assignment and the desired learning outcomes, some action was needed almost immediately when things went wrong. 'There has got to be some intervention in the process to try and put it back on track'. The same participant pointed out to the students very early in the course that 'groups had to keep [her] involved in the process and the problems that they have', but insisted that she 'would never make any decisions for them'.

Another participant explained that if dissension arose early enough, students were allowed to opt out: 'If students are unhappy, I let students opt out of the group…I let them do an individual assignment'. Early intervention was also preferred by another interviewee who spoke about the need to gather early feedback on how the group was performing and to identify potential issues:

> I do give them peer review very early in the course…[This] encourages them to be a little more proactive in coming to see me.

Five other participants, however, felt strongly that such intervention was contrary to the aim of group work and that:

> Reforming groups was a last resort. Given the course philosophy, I would actually make that not an option, unless there was risk of bloodshed. They are exploring the reality of groups.

Another participant stressed to students that he would intervene only as a last resort:

> It doesn't mean that we (teaching team) will never interfere or get involved, but it has to be a very good reason and it is up to us what the good reason will be.

It was important for another participant to require individuals, not the academic, to confront the trouble maker in a group:

> If somebody in your group is not performing then you will have to work out, as a group, how to get them to perform, how to find an appropriate job for them.

Another said, perhaps for pragmatic rather than philosophical reasons, that not intervening meant avoiding student criticism because 'I didn't have to be the bad guy expelling them from the group' while a colleague was unlikely to intervene because she was not sure that she '[had] the skills to do it (intervene) anyway'.

Assigning responsibility to groups

All of the participants, regardless of their attitude towards intervention, preferred to assign the main responsibility for problem resolution to the group, and offered varying levels of support, usually limiting it as much as possible. As one reported, 'the responsibility is with the group to find out why there's a problem'.

Another participant reinforced the idea of group responsibility by requiring a statement to be signed by group members acknowledging that intervention of staff could not be sought, as the following Course Guide extract shows:

> We will not seek out the intervention of university staff except in the case of serious illness or other grave misfortune.

Another talked about an incident where a group member had sought help:

> It's like raising your kids when they get into strife in the schoolyard and you have to say, 'I can't go and fix it for you'. I said that I would back her up but she should try first.

One participant would mediate only if necessary:

> I was happy to act as a mediator for the groups. They had to do all the decision making and as long as they knew the rules, which they developed themselves, they could implement them.

Another participant noted, indicating frustration with university intervention that seemed to question his non-interventionist philosophy towards group work:

> I think there is an approach which is fostered that puts a lot of pressure on the individual lecturer to intervene and often in a counterproductive way.

The nature and timing of intervention: Student perceptions and issues

In spite of their insistence on the need for group members to sort our their own problems, the majority of participants observed that students did not always respond favourably to group work or being required to take greater responsibility for managing the process, conflict resolution and outcomes:

> They think that that is really unfair (letting them sort things out) but that is part of what I am trying to get them to learn in the course and in the group role because they are getting really close to going off to employment.

Students, another participant reported, were inclined to seek assistance, and had to be firmly directed to take responsibility:

> Sometimes they come and grumble to me and I give them ideas of how to handle it and they would go back and sort it out themselves.

Students found it 'a bit scary' having to confront others in the group, and felt unprepared for group work and abandoned by their lecturers: 'We are just dumped into group work and told to get on with it'.

In contrast, one participant sought to prepare her students thoroughly, empowering them with the right to set and enforce group rules:

> It was all documented and they could get rid of the people who just wanted to be carried, just not turn up, appear at the end of the semester and want the grade.

The students indicated that 'they liked' this; but, ironically, this arrangement proved to be the ultimate in problem resolution without recourse to compromise. The group did not have to work with the non-contributor, nor deal with the effects of their lack of participation. The academic did not have to deal with a dysfunctional group. The ejected student was forced to complete the assignment on their own, and whether such a solution reflects the reality of the workplace must be a moot point.

Responses indicated that often students either failed to seek assistance until after the event or that staff failed to intervene in a timely fashion during the group work process. The lack of early and on-going intervention was often a deliberate policy based on a firm belief in the efficacy of allowing students to experience, from beginning to end, all aspects, good and bad, of working in a group.

However, in four cases intervention was required retrospectively at the time of assignment submission, and the outcomes were not considered positive. Participants' comments revealed frequent complaints from students about their experience of group work. For example:

> I was getting complaints after they handed up the work and then they'd say, 'well I did all the work and they didn't do this'. So there were a lot of those sorts of complaints from students.

Another said: 'They certainly complain afterwards (after assignment submission) that so and so didn't do any work'. In one case, despite encouragement from the academic to do so, the group was unsuccessful in managing the individual:

> The group came to me and said: 'This person really shouldn't be getting anything (marks); we (other students) have worked as a group'.

In response, the academic intervened by adjusting the mark for this individual's contribution to the assignment.

So common was the likelihood of a demand from students for retrospective intervention, that other participants required students to attest to their having contributed equally, after the assignment was completed, in order to avoid complaints of unfair assessment. If the contributions were unequal, the staff member would address the inequity, usually by adjusting marks.

This practice led to some interesting observations on the part of the participants that reflected the inadequate nature of retrospective intervention if learning outcomes were intended to reflect the ability of group members to work successfully as part of a team, and deal with interpersonal issues during the process:

> I always give them the option of 'dobbing in' people who don't do any work. They rarely do it. They tend to say, everybody worked on it and never work with that person again.

Another participant required students to describe their activities. Then the participant and other markers made a judgement, based on that description, about levels of participation, and marked the assignment in the light of how effectively the group members worked together:

> We (markers) make the judgment about equal participation, not the students. If it is biased towards one person or two people having done the work versus one, we will down grade the mark.

In another attempt to ensure that the final mark of a group assignment reflected the real contribution of each group member, one participant required students to take responsibility and declare, using a signed statement accompanying the assignment, that all students had contributed equally to the task, only to discover that students sometimes felt powerless to do this honestly:

> There's a lot of peer pressure to submit when 'The other person just turned up and signed it'. When I asked 'Why did you let them', they'd say, 'What else am I going to do?' It is pretty hard as a student, up against another student to say 'you're not going to sign it'.

Shared group marks were often challenged by students who found the concept of equal marks for an assignment untenable given their understanding of their own contribution compared with others:

> They don't like the group mark. Everybody wants to have different grades within the group and they challenge it. They think it is really unfair.

Retrospective intervention often did not assuage students, given the sense of injustice contributors felt or the willingness of non-contributors to manipulate such a system. Three participants could relate cases where an intervention had been challenged and adjusted by the university in response to student complaints, causing both frustration and dissatisfaction for the staff involved.

When one participant downgraded a final mark of a non-contributor, an adjustment which ran contrary to course guidelines stating that the grade would be shared:

> I was in strife when I adjusted his marks because he then failed the course. He complained to (the student advocate).

The student advocate challenged the academic's handling of the dispute and the student passed after lengthy consultation, but the participant was 'really not happy with him passing'.

Discussion

Intervention as an aspect of group work was a dominant theme derived from the data. Although comments relating to it were fragmented by the participants' different points of view, the frequent issue in group work was that individuals often don't work well together. In the light of this universal observation, the research illustrated that academics, even in such a small sample, approach the issue of how, when and whether to intervene in a variety of ways. Some interventions were more successful than others.

Intervention: Actions, attitudes, outcomes

Keeping a distance Participants were aware of expressions of student discontent, their frustrations and sense of unpreparedness for and unfairness of group work processes. Interventions were situated around counselling support, changing the composition of a group and adjusting marks at the end of a group work exercise to acknowledge unequal contribution, usually associated with group disharmony and even dysfunction.

Opinions about if, when and how to intervene among participants all reflected a philosophy that student learning was enhanced, and in one case, criticism deflected, when students assumed responsibility for sorting out problems that arose as part of the group exercise.

Participants believed that despite negative aspects, overwhelmingly, valuable learning occurred, while responsibility for the group's performance, both academically and socially, lay with the group members. Participants maintained that their role was to act as a reference point or facilitator, although to differing extents, and in an extreme case students were instructed not to seek assistance. If intervention was to occur, it was favoured in the initial stages of group formation, rather than when groups had progressed further with the task.

The preference to remain apart from group issues and activities is understandable given that collaborative learning aims to have students learn from each other without the immediate intervention of an academic (Boud, et al. 1999, p. 413). It was clearly the intention of the academics in this study to prepare students for the demands of complex and diverse future workplaces where team-based models dominate. In support of this philosophy are the expressed educational benefits of a student-centred learning environment based on theories of contructivism. Piaget (as cited in Johnson & Johnson 1994, p.39) argues that as individuals cooperate in collaborative endeavours, 'sociocognitive conflict and disequilibrium occurs that stimulates perspective-taking ability and cognitive development'.

A non-interventionist approach aligns with less instructor-based control over learning and greater student autonomy as argued by educational theorists who advocate students engaging in the complexities of collaboration where 'challenging dissonance' (Gackowski 2003) contributes to deeper learning (Johnson & Johnson 1994; Tuckman 1965).

According to Duch et al. (1998, p. 2), it is preferable to empower groups and give greater control to students rather than present them with solutions. Similarly, Helms and Haynes (1990) argue that intervening early can deprive individuals of the opportunity to learn about the realities of working in groups. Nevertheless, expecting students to deal with group problems as well as produce a high quality product creates tension between effective learning experiences and high levels of dissatisfaction when student expectations of support and perceptions of fairness go unmet. In the important action of assessment, where the efforts and abilities of others impact individual rewards, the consequences of dysfunction are keenly felt.

Choosing not to intervene Academics' reluctance to intervene can be perceived by students simply as their being unsupportive of vulnerable students or disengaged (Livingstone & Lynch 2002, Bonanno, Jones & English 1998).

Unwillingness to intervene was not always based on a pedagogical viewpoint about effective group learning. Non-intervention also resulted from a lack of awareness of problems and uncertainty about what actions might be appropriate. As noted by Crebert et al. (2004, p. 148), staff often feel inadequately prepared for management of many facets of group work.

There is also a keen awareness of the time consuming aspects of intervention. Livingstone and Lynch (2002b, p. 215) posit that while there are anticipated reductions in marking load, the workload arising from student-student and student-staff negotiations can be quite considerable for the academic when engaging in the possibly 'torrid business' of managing groups' interpersonal relations. Given that group work assignments are often set to reduce the marking loads of under-resourced staff (Dunne & Rawlins 2000), investing time in an ongoing involvement in the process will logically be resisted. However, time impositions on students when managing complex relationships and adjusting to diverse characteristics of individuals (Driver 2003) without expert guidance and authority in peer-to-peer relationships will work against successful outcomes.

Expelling or exempting group members Interventions by some participants resulted in the expulsion of non-contributing students from groups, or changes to the composition of a group by exempting a more able student when groups broke down. This was, however, rarely done or favoured, and was the intervention chosen only in three exceptional circumstances. The academic's role in one case was to approve rules established by each group, and if an incident arose that required action by the group, the academic ensured that the group's rules had been followed, but did not interfere in the resulting action.

This arrangement had considerably reduced the workload for the academic when groups had problems because the entire responsibility for resolution had shifted to the group. Reif and Kruck (2001, p.59) support such an approach to 'firing' non-productive group members but only if this process is 'negotiated and agreed in fairness'. Gackowski (2003, p. 363) agrees that this is often sufficient threat to discourage non-performers from expecting to be 'carried by others'.

Expulsion from a group or, conversely, allowing students to opt out of group work, are serious interventions at whatever point they occur during the group task. Moreover, the expulsion of the non-compliant group member or allowing individuals to opt out does not address or resolve the point of conflict, bringing the effectiveness of the group learning experience for all individuals involved into question.

For many academics, however, these options provide a reasonable alternative to unproductive and ongoing conflict and resentment. Expulsion and opting out are acknowledgments of the fact that some individuals cannot work collaboratively, and may even jeopardise the learning of others.

Allowing a student to opt out is a more positive intervention than expulsion, which is regarded as much more punitive and a response to disruptive behaviour. The consequences for the expelled student are also usually quite different from those for the student who opts out. A rejected student may become anxious (Diamond 1991, as cited in Driver 2003, p. 151) about their ability to work collaboratively and resent future directions to work as part of a team.

Intervening retrospectively At times participants were frustrated when made aware of problems with groups after assignments had been completed and submitted, at which time there were few options available. A grade adjustment was the only apparent option, but this did not always result in increased satisfaction among the students who encountered inequities, with conflict over grades being the final outcome.

The unfortunate situation of having to act retrospectively can result from untimely or absent intervention. When groups fail to confront a conflict and negotiate a solution, or when group members allow a dominant, able individual to complete the task with minimal input from other group members, the depth of anxiety and sense of unfairness are often only articulated after the task is complete. It is often only when students are free from a group environment they considered oppressive that they express their discontent (Livingston & Lynch 2002a, Mills 2003). The awarding of important assessment grades to the members of dysfunctional or underperforming groups inevitably gives rise to feelings among more able students that they have been short-changed by the process and could have learned more and performed better had they worked alone (Burdett 2003).

Delayed intervention In three cases cited by participants, aggrieved students objected to delayed interventions of grade adjustments and disputed remedies. They successfully appealed academic decisions, and participants were left feeling that intervention from the university's student advocates led to frustrating and unsatisfactory outcomes. To reduce the possibility of such incidents, some of the academics provided detailed statements of requirements at the outset, not only about the group assignment task, marking guidelines and penalties but also the procedures to be followed. In one case, the use of contracts to formalise group membership and responsibilities and student statements verifying contribution had proven to be useful management devices that reduced the incidence of disputes about inclusion and exclusion of individuals and subsequent demands for intervention. The strategy was a reflection of the academics' desire to have groups work autonomously. The university's intervention curtailed their own autonomy.

In an effort to avoid complaints and confrontation after assignments were submitted, some academics required groups to certify that all members of the group contributed equally. The mark was then shared with little adjustment for individual differences. An attempt to increase accountability by measuring individual contribution was made by two participants who formed their own judgement about the level and quality of individual contribution based on each student's description of what they had done in completing the group task. Peer assessment was used in two courses to measure individual contribution. Attendance at group meetings by individuals contributed to the mark, but the effectiveness of this intervention relied on the skill, time and judgement of individuals in the group and the process had been manipulated in some instances, which is not unexpected according to Boud et al. (1999) and Gackowski (2003).

The assessment of group work frequently gives rise to perceptions that the assessment mark fails to reflect individual ability or the difficulties faced by group members in working with others and completing the task (Gatfield 1999, Morris 2001, Boud et al. 1999). Group cooperation on an assessed task may be an unrealistic goal when there exists tension between collaborative and competitive cultures (Crebert et al. 2004). The use of norm-referenced assessment commonly used in universities, 'implies and requires competition rather than cooperation essential in group work' (Boud et al. 1999, p. 419). Kagan (1996) argues against assessing group work, believing the chances of achieving a high grade in group work depend more on good fortune rather than on student motivation, ability and performance.

Conclusion

While academics anticipate valuable learning when students work together, students often see things differently. Student problems, anticipated and actual, forced academics in this study to consider appropriate interventions, the type, timing and the extent of interventions and their consequences. It is clear from their observations that a deliberate decision not to intervene, whilst intended to be a positive and realistic learning experience for students, can be harmful when students are unable to perform at their best. Furthermore, the interventions themselves can be confronting and controversial, such as expulsion from a group for failing to work collaboratively.

Simply putting students in groups, assigning a task and espousing the benefits of collaboration are not enough to ensure that group and team work skills are learned or successfully performed. At the very least, a sound justification for this form of assignment, clear objectives, guidelines for its conduct and fair assessment are needed.

Considerable skill on the part of both students and academics is required to manage successfully the diverse demands of group work assignments. Students are not always able to manage appropriately, either alone or collectively, the problems that can occur when working on group assignments and must be taught the relevant skills prior to embarking on such endeavours. When dysfunction becomes apparent only on completion of the task, remedies are particularly limited and contentious. Importantly, academics must feel well-prepared and confident in their ability to manage and support groups closely during all stages of the process and staff development opportunities are essential in this area. The decision to adopt group work assignments and maintain a non-interventionist approach cannot be taken lightly nor should group work be regarded as a 'time-saver'. A robust commitment to the careful planning and execution of all aspects of design, management, support and intervention is required.

Given the troublesome aspects of group work, academics must consider whether or not group work assignments can be implemented and justified as an effective, fair, equitable learning and assessment strategy. If not, then the continued use of group work assignments must be questioned.

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